

CLAIMS

1. In an envelope detector for determining whether the level of a differential input signal $DPIN - DNIN$ is above a reference voltage V_{REF} : means for converting the differential input signal to a differential current $IDP - IDN$ and the reference voltage to a reference current I_{REF} , means for
5 comparing the currents to determine if $|IDP - IDN|$ is greater than I_{REF} , and means for indicating a valid differential signal when $|IDP - IDN|$ is greater than I_{REF} .
2. The envelope detector of Claim 1 wherein the means for determining if $|IDP - IDN|$ is greater than I_{REF} includes a first comparator for comparing $IDP - IDN$ with I_{REF} and a second comparator for comparing $IDN - IDP$ with I_{REF} .
3. The envelope detector of Claim 2 wherein the means for indicating a valid differential signal includes an OR circuit coupled to the comparators for providing an output signal when $IDP - IDN > I_{REF}$ or $IDN - IDP > I_{REF}$.
4. In a method of determining whether the level of a differential input signal $DPIN - DNIN$ is above a reference voltage V_{REF} , the steps of: converting the differential input signal to a differential current $IDP - IDN$, converting the reference voltage to a reference current I_{REF} , comparing the
5 currents to determine if $|IDP - IDN|$ is greater than I_{REF} , and means for indicating a valid differential signal when $|IDP - IDN|$ is greater than I_{REF} .
5. The method of Claim 4 wherein the currents are compared by comparing $IDP - IDN$ and $IDN - IDP$ with I_{REF} , and the valid differential signal is indicated if either $IDP - IDN$ or $IDN - IDP$ is greater than I_{REF} .
6. In an envelope detector for determining whether the level of a differential input signal $DPIN - DNIN$ is above a reference voltage V_{REF} , the

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10. The method of Claim 9 wherein $IDP - IDN$ and $IDN - IDP$ are compared with I_{REF} , and the output signal is provided when $IDP - IDN > I_{REF}$ or $IDN - IDP > I_{REF}$.
11. The method of Claim 9 wherein the output signal is passed through a Schmitt trigger having trigger levels set further apart than a change in the output signal during the switching interval.